

### AMENDMENTS TO THE CLAIMS:

Claims 1-3 and 12-14 are presently pending. Claims 4-11 are cancelled herein without prejudice or disclaimer. Claims 12-14 are added herein. This listing of claims will replace all prior versions, and listings of claims, in the application.

### LISTING OF CLAIMS:

1. (Original) A method for identifying nucleotides at one or more base positions in a plurality of target nucleic acids molecules, comprising:

synthesizing extension products of the target nucleic acid in the presence of chain terminating nucleotides and mass-matched nucleotides;  
determining the mass of each extension product; and  
calculating a mass shift from a period for the mass of each extension product, whereby the nucleotides in the target nucleic acid molecules are identified by determining the nucleotide that corresponds to each mass shift.

2. (Currently) The method of claim 1, wherein the mass-matched nucleotides are mass-matched deoxynucleotides that are identical.

3. (Original) The method of claim 1, wherein a mass-matched deoxynucleotide is deoxyinosine, 5-nitroindole, 3-nitropyrrole, 3-methyl 7-propynyl isocarbostyryl, 5-methyl isocarbostyryl or 3-methyl isocarbostyryl.

4 - 11 (Cancelled)

12. (New) The method of claim 1, wherein the chain terminating nucleotides are mass-matched.

13. (New) The method of claim 1, wherein a plurality of target nucleic acids is multiplexed in a single reaction measurement.

14. (New) The method of claim 1, wherein a mass-matched deoxynucleotide is 7-deaza-dG, phosphorothioate-7-deaza-dA, 5-propynyl-dU and 5-cyanomethyl-2'-deoxycytidine.